

# The ISTE National Educational Technology Standards (NETS•S) and Performance Indicators for Students

## 1. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

- a. apply existing knowledge to generate new ideas, products, or processes.
- b. create original works as a means of personal or group expression.
- c. use models and simulations to explore complex systems and issues.
- d. identify trends and forecast possibilities.

## 2. Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

- a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
- b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.
- c. develop cultural understanding and global awareness by engaging with learners of other cultures.
- d. contribute to project teams to produce original works or solve problems.

## 3. Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:

- a. plan strategies to guide inquiry.
- b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
- c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
- d. process data and report results.

## 4. Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:

- a. identify and define authentic problems and significant questions for investigation.
- b. plan and manage activities to develop a solution or complete a project.
- c. collect and analyze data to identify solutions and/or make informed decisions.
- d. use multiple processes and diverse perspectives to explore alternative solutions.

## 5. Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

- a. advocate and practice safe, legal, and responsible use of information and technology.

- b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
- c. demonstrate personal responsibility for lifelong learning.
- d. exhibit leadership for digital citizenship.

## **6. Technology Operations and Concepts**

Students demonstrate a sound understanding of technology concepts, systems, and operations.  
Students:

- a. understand and use technology systems.
- b. select and use applications effectively and productively.
- c. troubleshoot systems and applications.
- d. transfer current knowledge to learning of new technologies.

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# ISD Technology Integration Scope & Sequence – Grades K-12

## Student Learning Outcomes

### 1. Creativity and Innovation

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1.0.0	<b>Video</b> Responsibility: Special HS Class/ Grade level	K	1	2	3	4	5	6	7	8	9	10	11	12
1.0.1	discusses media literacy and uses of media in life							I	I	I	I	D	D	M
1.0.2	uses different features of a camcorder and tripod										I	D	D	M
1.0.3	frames subjects with different views										I	D	D	M
1.0.4	uses in-camera editing feature										I	D	D	M
1.0.5	plans, storyboards, and creates a two minute video										I	D	D	M
1.0.6	uses in-camera editing for animation video										I	D	D	M
1.0.7	creates titles, credits, and ending										I	D	D	M
1.0.8	uses manual focus										I	D	D	M
1.0.9	uses different graphic and file converters										I	D	D	M
1.0.10	compresses images from a digital camera to use in video								I	I	I	D	D	M
1.0.11	works with different compression speeds and ratios										I	D	D	M
1.0.12	uses non-linear editing software to digitize video										I	D	D	M
1.0.13	creates video segments to express their views/ideas							I	I	I	I	D	D	M
1.0.14	imports video segments into presentations							I	I	I	D	D	D	M
1.0.15	collaborates with team to create video using class and online resources							I	I	I	I	D	D	M
1.0.16	Uses computer based models/simulations to explore complex systems/issues and to express personal/group views							I	I	I	I	D	D	M

**I - Introduce** (Students receive directed instruction introducing new concepts or skills)

**D - Develop** (Students are using skills thro' guided and self-directed learning)

**M - Mastered** (Students are functioning at an independent level, routinely using skills across the curriculum.)

ISD K-12 Tech Scope Sequence

	Web Authoring	Special MS/HS Class													
1.2.0		K	1	2	3	4	5	6	7	8	9	10	11	12	
1.2.1	creates page with text and/or links and saves as html document							I	D	D	M	M	M		
1.2.2	uses template to place text and links							I	D	D	M	M	M		
1.2.3	creates a personal/group web page using appropriate authoring program/ web 2.0 tools to convey ideas/views.							I	D	D	M	M	M		
1.2.4	changes background and colors, imports images, inserts and modifies text							I	D	D	M	M	M		
1.2.5	storyboards, plans, and creates organized folders for images and website							I	D	D	M	M	M		
1.2.6	saves page, gives it a title, and makes sure images are in correct folder							I	D	D	M	M	M		
1.2.7	creates anchors or targets to links on page and links to other pages, email, and sources							I	D	D	M	M	M		
1.2.8	creates and formats tables							I	D	D	M	M	M		

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Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

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- develop cultural understanding and global awareness by engaging with learners of other cultures.
- contribute to project teams to produce original works or solve problems.

2.0.0	<b>Presentation Tools</b>	K	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Responsibility: SS/Science</b>													
2.0.1	Creates and saves slide show in folder with pictures and as stand-alone slide show			I	I	D	D	M	M	M				
2.0.2	plans and storyboards ideas for presentation			I	I	D	D	D	M	M	M			
2.0.3	applies designs, backgrounds, font styles, and colors for all slides				I	D	D	M	M	M				
2.0.4	imports graphs, charts, animations, video, and sound					I	I	D	D	D	M	M	M	
2.0.5	Use projector for presentation						I	D	D	D	M	M	M	
2.0.6	creates custom animations, Video & Sound							I	D	D	D	M	M	M
2.0.7	applies good design principles				I	I	D	D	M	M	M			

# ISD K-12 Tech Scope Sequence

2.1.0	<b>Web 2.0 tools</b>	<b>Responsibility: Grade level</b>	K	1	2	3	4	5	6	7	8	9	10	11	12
2.1.1	Use & manage E-mail & communication tools intelligently						I	I	D	D	D	M	M	M	
2.1.2	Create blogs, wikis to collaborate, journal & to express views							I	I	D	D	D	M	M	M
2.1.3	Share & collaborate responsibly online with peers beyond geographical location to produce meaningful information								I	I	D	D	D	M	M
2.1.4	Annotate web based documents, share and critique them with peers									I	I	D	D	D	M
2.1.5	Co-create & edit information/ documents							I	I	D	D	D	M	M	M
2.1.6	Express ideas responsibly (hypertext, visual & audio) through online media & tools such as Facebook, Youtube, Skype etc.									I	I	D	D	D	M

## 3. Research and Information Fluency

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- evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
- process data and report results.

3.0.0	<b>Internet</b>	<b>Responsibility: Grade level/Library (Media skills)/IT</b>	K	1	2	3	4	5	6	7	8	9	10	11	12
3.0.1	uses sites the teacher points to			I	I	D	D	M	M	M					
3.0.2	launches a browser and uses the tool bar				I	D	D	M	M	M					
3.0.3	navigates by clicking on links on web pages & returns to site using history, back button, or bookmarks/favorites			I	I	D	D	M	M	M					
3.0.4	explains the parts of a URL				I	D	D	D	M	M	M				
3.0.5	types URLs correctly				I	D	D	D	M	M	M				
3.0.6	add bookmarks/favorites				I	D	D	D	M	M	M				
3.0.7	uses keyword and boolean searches						I	I	D	D	D	M	M		
3.0.8	sets home page and configures page setup to print title, URL, and date						I	D	D	M	M	M			
3.0.9	edits bookmarks/favorites and organizes them into folders							I	I	D	D	D	M	M	M
3.0.10	downloads files and plug-ins								I	I	D	D	D	M	M
3.0.11	explains difference between search engines, subject directories, and meta search engines								I	I	D	D	D	M	M
3.0.12	Conduct library database searches				I	I	I	D	D	D	M	M	M		
3.0.13	Evaluate, select and access information sources (Intranet, Internet)					I	I	D	D	D	M	M	M		

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- plan and manage activities to develop a solution or complete a project.
- collect and analyze data to identify solutions and/or make informed decisions.
- use multiple processes and diverse perspectives to explore alternative solutions

	<b>Responsibility: Grade level/Library (Media skills)/IT</b>	<b>K</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
4.0.1	Use content specific tools, software and simulations	I	I	I	D	D	D	D	D	D	M	M	M	
4.0.2	Select and apply technology tools for research, information analysis, problem-solving and decision-making in content learning.				I	I	I	D	D	D	M	M	M	
4.0.3	Use a variety of media and technology resources for directed and independent learning activities including web 2.0 tools.				I	I	I	D	D	D	M	M	M	
4.0.4	Evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias for appropriate use of electronic information sources.					I	I	D	D	D	D	M	M	
4.0.5	Use Concept mapping/ Outlining tools				I	I	I	D	D	D	M	M	M	

#### 5. Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

- advocate and practice safe, legal, and responsible use of information and technology.
- exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
- demonstrate personal responsibility for lifelong learning.
- exhibit leadership for digital citizenship.

	<b>Social and Ethical Use Responsibility: Grade level/IT</b>	<b>K</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
5.0.0	<b>Social and Ethical Use</b>													
5.0.1	Discusses and demonstrates positive social ethical and legal behaviors when using technology			I	D	D	D	D	D	D	D	D	M	M
5.0.2	demonstrates knowledge of current changes in information technologies and the effect those changes have on the workplace and society				I	I	D	D	D	M	M	M		
5.0.3	Follows copyright laws (intellectual property) and cites resources properly in appropriate format					I	D	D	D	M	M	M		
5.0.4	access and use primary and secondary sources of information for an activity (Internet Skills)				I	I	I	D	D	D	D	D	M	M
5.0.5	Understand that online behavior and actions impact the access and safety of personal information				I	I	I	D	D	D	D	D	M	M
5.0.6	Understand and comply with the ISD Network use policy	I	I	I	I	D	D	D	M	M	M	M		

## 6. Technology Operations and Concepts

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- understand and use technology systems.
- select and use applications effectively and productively.
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6.0.0	<b>Word Processing</b>	K	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Responsibility: LA/IT (Newspaper/ Yearbook)</b>													
6.0.1	formats a document			I	D	D	D	M	M	M				
6.0.2	inserts and edits text	I	I	I	D	D	D	D	M	M	M			
6.0.3	formats paragraphs			I	I	I	D	D	D	M	M	M		
6.0.4	creates bullet and number lists				I	I	D	D	D	M	M	M		
6.0.5	uses spell checker and thesaurus		I	I	I	D	D	D	D	M	M	M		
6.0.6	Inserts a graphic and wraps text				I	I	D	D	D	M	M	M		
6.0.7	uses word processor for writing process		I	I	I	D	D	D	D	M	M	M		
6.0.8	uses ruler, margins, and tabs			I	I	D	D	D	M	M	M			
6.0.9	uses outlining feature					I	I	D	M	M	M			
6.0.10	Inserts headers and footers				I	I	I	I	M	M	M			
6.0.11	creates and formats tables				I	I	I	I	M	M	M			
6.0.12	Inserts section, column, and page breaks						I	I	M	M	M			
6.0.13	transfers and merges files into document							I	I	I	D	M	M	M
6.0.14	uses advanced editing features such as track changes, speak text						I	I	D	D	M	M	M	

6.1.0	<b>Graphics and Publishing</b>	K	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Responsibility: Art/IT (Yearbook)/gradelevel</b>													
6.1.1	creates pictures with grade appropriate software	I	I	I	M	M	M							
6.1.2	inserts images into documents			I	I	D	D	M	M	M				
6.1.3	scans pictures			I	I	I	D	D	D	M	M	M		
6.1.4	uses digital camera				I	I	I	D	D	M	M	M		
6.1.5	uses draw tools to create objects	I	I	I	D	D	M	M	M					
6.1.6	knows difference between draw and paint	I	I	D	D	D	M	M	M					
6.1.7	rotates, duplicates, groups, aligns, and resizes objects			I	I	D	D	M	M	M				
6.1.8	uses draw and paint using appropriate software	I	I	I	D	D	D	M	M	M				

# ISD K-12 Tech Scope Sequence

6.1.9	captures images from the Internet and follows copyright laws for use of images				I	I	I	D	D	D	M	M	M	
6.1.10	saves images in different formats						I	D	D	D	M	M	M	
6.1.11	works with text objects in draw mode	I	I	I	D	D	D	D	D	D	M	M	M	
6.1.12	works with paint tools to modify photos and to create original art				I	I	I	D	D	D	D	D	M	M
6.1.13	uses effective design/lay-out techniques & principles				I	I	I	D	D	D	M	M	M	
6.1.14	manipulate settings to print graphics efficiently					I	I	D	D	D	M	M	M	

6.2.0	<b>Spreadsheets</b> Responsibility: Math/Science	K	1	2	3	4	5	6	7	8	9	10	11	12
6.2.1	creates a graph to compile data collections using a basic graphing program				I	D	D	D	M	M	M			
6.2.2	uses existing spreadsheet to sort and find data				I	D	D	D	M	M	M			
6.2.3	collects data and creates new spreadsheet					I	D	D	M	M	M			
6.2.4	collects, inputs, analyzes, organizes and displays data graphically				I	I	I	D	D	D	M	M	M	
6.2.5	creates simple formulas				I	I	I	D	D	D	M	M	M	
6.2.6	uses the appropriate chart for activity and data						I	D	D	D	M	M	M	
6.2.7	formats and changes axis scale, chart area, data series or appearance of charts								I	D	D	M	M	M
6.2.8	formats and prints spreadsheets to use as templates and forms								I	D	D	D	M	M
6.2.9	uses complex functions and formulas									I	D	D	D	M
6.2.10	uses relational formulas or links							I	D	D	M	M	M	

6.3.0	<b>Database Skills</b>	K	1	2	3	4	5	6	7	8	9	10	11	12
	Responsibility: SS/Science/Math													
6.3.1	Define file, record, field and data for educational purposes										I	D	D	M
6.3.2	creates new databases related to topic and manipulates a variety of data for project										I	D	D	D
	<b>Data Collection/Analysis</b>													
6.3.3	Use appropriate tools (e.g. software, calculators and probeware) to collect, manipulate, analyze and display data							I	I	D	D	D	M	M

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